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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,957	11/06/2000	Toshihiko Miyazaki	826.C1808	7909

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EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT PAPER NUMBER

2882

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/705,957	<b>Applicant(s)</b> MIYAZAKI ET AL.	
	<b>Examiner</b> Elizabeth Gemmell	<b>Art Unit</b> 2882	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-25,47-51,53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-25,47,49-51 and 53 is/are allowed.
- 6) ☒ Claim(s) 48 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10/30/03</u> | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Receipt is acknowledged of the amendment and request for continued examination filed 6 October 2003.

### ***Specification***

The objection to the specification disclosing information well outside the scope and bounds of the claimed invention is hereby withdrawn. However, the examiner notes this objection will be upheld for any continuation or divisional case filled claiming priority to this case.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 48 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fushimi et al. (U.S. Patent 5,905,335; hereinafter Fushimi) in view of Ichikawa et al. (U.S. Patent 4,445,132; hereinafter Ichikawa) and Ando (U.S. Patent 6,603,254).

Fushimi discloses, in figure 4 and throughout the disclosure, an image formation apparatus comprising:

- an electron source substrate comprising:
  - a first substrate (2);

- an array of electrode pairs on the first substrate configured by pairs of device electrodes placed along a plurality of rows (12) and a plurality of columns (13);
  - an electron source placed between the pair of electrodes (15);
  - a plurality of column wires on the first substrate made up of column wires commonly connecting one of each electrode pair on a column provided for each electrode pair on each column (13); and
  - a plurality of row wires on the substrate commonly connecting another of each electrode pair on a row (12), which are insulated from the column wires (14), provided for each electrode pair on each row;
- an image formation substrate comprising a second substrate (6) and an image formation material placed on the second substrate (7);
  - an enclosure configured by the first and second substrates and an external frame placed between the first and second substrates (4); and
  - a plurality of spacers (5) inserted between the electron source substrate and the image formation substrate and placed on the row wires.

However Fushimi fails to teach or fairly suggest the row wires having a width larger than the column wires.

Ichikawa teaches row wires having a width larger than the column wires (column 6, lines 33-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use row wires having a width larger than the column wires in the image formation apparatus disclosed by Fushimi because it increases the resistivity of the row wires, improving the current flow from the signal line (column 6, lines 30-33). By improving the current flow, the overall image produced is improved because the frame changes happen faster, thereby producing a seamless change of frames.

Fushimi and Ichikawa fail to teach or fairly suggest a ratio of width  $W$  to thickness  $T$  of an external frame being within 1.5-3.0.

Ando discloses an external frame having an aspect ratio of within 1.5-3.0 (column 5, line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an external frame having an aspect ratio of within 1.5-3.0 in the image apparatus disclosed by Fushimi and Ichikawa because during manufacturing small cracks in the frame are reduced thereby reducing the amount of gas seeping from the device and increasing the life of the image device (column 4, lines 63-64).

#### ***Allowable Subject Matter***

Claims 23-25, 47, 49-51 and 53 are allowed over the prior art.

The following is a statement of reasons for the indication of allowable subject matter: As set forth in office action dated 1 August 2003.

Art Unit: 2882

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (703) 308-4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



emg



EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER